

63). To test our hypothesis, we marked some individuals in autumn 1990 and will watch for their reappearance in the spring of 1991.

Nocturnal aggregations of several species of *Chalybion* have been reported: *C. californicum* (= *C. caeruleum* [L.]) (Rau, P. & N. Rau. 1916b. Ann. Entomol. Soc. Am., 9: 227–274; Rau, P. 1938. Ann. Entomol. Soc. Am., 31: 540–556; Weiss 1944; Ward 1972), *C. zimmermanni* Dahlbom (Rau, P. 1942. Can. Entomol., 74: 196), *C. bengalense* (Dahlbom) (= *C. violaceum* [Fabr.]) (Williams, F. X. 1928. Hawaiian Sugar Planters' Assoc., Entomol. Ser. Bull., 19: 1–179; Jayakar, S. D. & R. S. Mangipudi. 1965. J. Bombay Nat. Hist. Soc., 61: 708–711), and *C. japonicum* (Gribodo) (= *Sceliphron inflexum* Sickmann) (Iwata, K. 1963. Trans. Shikoku Entomol. Soc., 7: 114–118). All four species are in the subgenus *Chalybion*; *C. californicum* and *C. zimmermanni* are New World species, and *C. bengalense* and *C. japonicum* are Old World species (Bohart & Menke 1976). The aggregations of these four species consisted of both sexes although no mating behavior was observed by Rau & Rau (1916b) or Ward (1972) or by us. Therefore, the aggregations do not appear to facilitate mating. By day, *Chalybion* spp. are solitary wasps; why they aggregate at night has remained a mystery since Rau & Rau first described this behavior in 1916.

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Scientific Note

OCCURRENCE OF *COCCINELLA SEPTEMPUNCTATA* (L.) (COLEOPTERA: COCCINELLIDAE) IN CENTRAL BRITISH COLUMBIA

Coccinella septempunctata (L.), the seven spotted lady beetle (C7), is a Palearctic predator intentionally introduced into North America numerous times since 1956 for the biological control of aphids (Angalet, G. W., J. M. Tropp & A. N. Eggert. 1979. Environ. Entomol., 896–901; Schaefer, P. W., R. J. Dysart & H. B. Specht. 1987. Environ. Entomol., 16: 368–373). During 1973 it was found to be established in both northern New Jersey and Quebec (Angalet, G. W. & R. L. Jacques. 1975. USDA Coop. Econ. Insect Rep., 25: 883–884; Laroche, A.

1979. Bull. Invert. Ins. Québec, 1: 68–73). Since then, its range in North America has rapidly expanded, both as a result of natural dispersal and redistribution by biocontrol workers (Schaefer et al. 1987). This article reports a significant expansion of the known range of *C. septempunctata* to central British Columbia.

In early August, 1990, large numbers of beetles were noted on bareroot spruce (*Picea*) seedlings, caragana (*Caragana arborescens* Lamarck) windbreaks, and weeds alongside a greenhouse at a commercial conifer seedling nursery located at Ness Lake near Prince George, British Columbia. Because of a concern for potential damage to the seedlings, adults were collected and submitted to Pacific Forestry Centre, Forestry Canada, for identification. Seven of these adults were *C. septempunctata*. This identification was later confirmed by J. McNamara of Biosystematics Research Centre, Agriculture Canada, Ottawa, who also determined the remaining beetles in the collection (2 females) to be *Hippodamia* sp. prob. *quinquesignata* (Kirby). Voucher specimens of C7 (7 adults) and *Hippodamia* sp. (2 adults) are deposited in the Forestry Canada, Forest Insect and Disease Survey insect reference collection, Victoria, British Columbia.

The origin of this C7 population is enigmatic. As there have been no intentional releases of C7 in central British Columbia, its presence at Ness Lake could have resulted from either an adventive introduction or natural dispersal. Although an adventive introduction cannot be ruled out, other isolated recoveries of C7 in North America indicate that natural dispersal is a credible mechanism to account for its presence in the Prince George area. *Coccinella septempunctata* is an active flier capable of long distance dispersal from release sites. It has been found on Sable Island, Nova Scotia, more than 175 km from the nearest land (Schaefer et al. 1987). As well, recent surveys in Saskatchewan and Manitoba have shown it to be present in most agricultural areas of both provinces, with dispersal as far north as Ile-a-La-Crosse (55°30'N) in the boreal forest of Saskatchewan, more than 360 km from the nearest release site (Turnock, W. J., B. Timlick, J. F. Doane & J. Soroka. 1990. Ag. Can. Res. Br. Biocontrol News, 3: 25–30). Further surveys should be conducted in British Columbia to determine the distribution of C7.

Because releases of *C. septempunctata* in the Pacific Northwest have been confined to the Vancouver area of British Columbia, more than 520 km to the south (Schaefer et al. 1987; B. D. Fraser, personal communication), and in agricultural areas of Washington and Oregon, at least 750 km to the SSE (Schaefer et al. 1987; Olkowski, W., A. Zhang & P. Thiers. 1990. IPM Practitioner, 12: 1–12) surveys along the major drainages to the south (e.g., Fraser, Thompson, Okanagan and Columbia rivers) would indicate if C7 has spread from more southerly populations. Although dispersal from more southerly populations is more likely, the recovery of C7 from a more northerly latitude in the boreal forest of Saskatchewan indicates that dispersal into British Columbia from the northeast through the Peace River drainage system cannot be discounted.

Material Examined.—*Coccinella septempunctata*: BRITISH COLUMBIA. Ness Lake (54°N, 123°05'W), about 25 km NW of Prince George, 16 Aug 1990, F. Donnelly, ex *Picea* and *Caragana arborescens*, FIDS 90-1305-01.

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Scientific Note

NOTES ON TWO PACIFIC COASTAL SPECIES OF TENEBRIONIDAE (COLEOPTERA)

Scaphidema pictum Horn was transferred (Triplehorn, C. A. 1961. *Coleopt. Bull.*, 15: 125–127) into *Phaleromela*, receiving the new name *variegata* Triplehorn, because *pictum* was preoccupied. At the time *Phaleromela variegata* was known only from Oregon. Shortly thereafter, its range was reported as southwestern British Columbia to Oregon, in sandy areas along river banks (Hatch, M. 1965. *Beetles of the Pacific Northwest. Part IV.* University of Washington Press, Seattle). Subsequent collection records show that the range is more extensive, including Idaho and California. The Idaho collections are from the western edge (Idaho Co.) and the south central part (Blaine Co.) of that state (data below). Probably, the beetles occur throughout the Snake River drainage, including the western parts of Wyoming and Montana.

In California, several collections have been made (data below), where specimens were taken from fine, dry, partially shaded sand near rivers or streams. Although the beetles and their larvae inhabit dry sand, they are never more than a few inches from moist sand and do not live long in the laboratory if water is withheld. The sand bars and banks where they occur are often flooded during winter. It is unknown how they survive this period. Collection localities include both the coastal mountains and the Sierra Nevada, at elevations near sea level to almost 2000 m.

Phaleromela variegata (as *Scaphidema pictum*) and *P. globosa* (LeConte) (as *Phaleria*) were included in a list of Tenebrionidae (Papp, C. S. & W. D. Pierce. 1960. *J. Kansas Entomol. Soc.*, 33: 154–156) found to be associated with stored animal food in the Antelope Valley on the western edge of the Mojave Desert. *Phaleromela variegata* appears to be strictly limited to the montane riparian habitat described above and has not been recorded in barnyard situations. Moreover, the closest geographic records are about 500 miles north. *Phaleromela globosa* occurs strictly on maritime sand dunes from British Columbia to approxi-